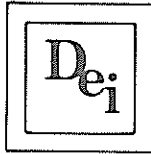


**DEVTRONICS, Inc.**

1571 Main Street  
Atlantic Beach, Florida 32233  
Telephone (904) 241-3281



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July 31, 1987

Mr. R. L. Helms, Mngr. Sys. Engr. & Planning  
CSX Transportation  
500 Water Street  
Jacksonville, Fl. 32202

**Re: SPEECH FORMAT FOR THE UTL DRAGGING EQUIPMENT DETECTOR**

Dear Mr. Helms:

Upon activation of the TRACK CIRCUIT the following 'Head End' message is made one time:

"CSX DETECTOR MILE POST xxxx.x"  
"CHECKING TRAIN MOVEMENT"

If no defect has occurred upon release of TRACK CIRCUIT the following message is made twice:

"CSX DETECTOR MILE POST xxxx.x"  
"NO DEFECT"

If any defect has occurred during train movement then upon release of the TRACK CIRCUIT the following message is made four times:

"CSX DETECTOR MILE POST xxxx.x"  
"DRAGGING EQUIPMENT"  
"CHECK ENTIRE TRAIN"

Also, as soon as a dragging equipment defect occurs an alarm tone group is transmitted for each defect as follows:

**Three tones of 3 seconds duration each will be transmitted for each defect that occurs.**

If I may be of further assistance please let me know.

Sincerely,

  
Bob Douglas

## STAND ALONE DRAGGER OPTION SELECTIONS

(All Switches Read During Reset)

### OPTION SWITCH 1

This switch is used to test operation of Track Side Detectors. When this switch is on the unit will enunciate which detector was tested. This test includes the track circuit (if selected) and wheel gate transducer. If the detector is open continuously (with the exception of the wheel gate transducer) the announcement will be repeated until the option switch is turned off and the system is reset or the detector circuit is closed.

### OPTION SWITCH 1 & 2

When these switches are both on the system software simulates a 90 axle train with the following defects:

AXLE 010 Dragging Equipment  
\* AXLE 030 Wide Load E/S Rail  
\* AXLE 050 Wide Load W/N Rail  
AXLE 070 High Load

NOTE: Axle counts are from head of train. If from rear count is selected. The defective axle counts will be referenced from the rear of the train. The track inputs are not recognized during this test.

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\* The enunciations on these defects will be given by Absolute Rail (North, South, East or West).

#### OPTION SWITCH 2

When on a continuously repeating tone will be sounded. This switch is used for initial radio adjustment.

#### OPTION SWITCH 3

When off all defects will be referenced from rear of train and all defect messages will enunciate "from rear of train". When on all defects will be referenced from head of train and all defect messages will enunciate "from head of train".

#### OPTION SWITCH 4

This switch is used with the dual track option switch to specify site location. When on, the site is specified as being on the South/West track. When off, the site is specified as being on the East/North track.

#### OPTION SWITCH 5

This switch is used to specify train movement. When on, overall train movement is specified as being East/West. When off, the train movement is North/South.

#### OPTION SWITCH 6

This switch is used to select the initial approach message. When on an initial approach message will be enunciated after the fourth axle has passed the wheel gate transducer. When off no initial message will be enunciated.

#### OPTION SWITCH 7

This switch is used if the site has a track circuit. When on the system recognizes a train on site when the track circuit opens. All messages, except for the initial message (if selected) & defect alarms, are delayed until track circuit closes. When off all train information is determined by wheel gates.

## OPTION SWITCH 8

This switch is used to specify either a single or dual track installation. When on a dual track installation is specified. When off a single track installation is specified.

## DIAGNOSTIC LIGHTS

C R 52: Lights whenever radio is keyed.

C R 32: Train not on site. On for approximately 8 seconds then off for approximately 8 seconds.

C R 33: Train not on site: LED is off. Train on site: LED switches from on to off on alternate wheel gates.

When all three are on steady a major malfunction has occurred.

The Central Processor is not running the program properly.

UT1 MICROTALKER VOCAL ENUNCIATION FORMAT

(POS 6) APPROACH MESSAGE OPTIONAL

"R.R. Name, Detector, Milepost, Checking Train Movement"

NO DEFECT TRAIN

"R.R. Name, Detector, Milepost, No Defects, Total Axles"  
(Three Times)

DEFECTIVE TRAIN

"R.R. Name, Detector, Milepost, First Dragging Equipment  
Near Axle, From Rear of Train or From Head of Train,  
Total Axles" (Three Times)

IF DEFECTS EXCEED LIMIT (3)

"R.R. Name, Detector, Milepost, Detector Malfunction  
Check Entire Train" (Three Times)

INPUT OPTION

D.E., High Load, Wide Load